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DOCUMENTS SECTION

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MARE ISLAND, VALLEJO, CALIFORNIA

3 June 1948

Committee on Artificial Limbs
National Research Council
2101 Constitution Avenue
Washington, D. C.

may

MONTHLY REPORT OF THE EXPERIMENTAL WORK AT THE ARTIFICIAL
LIMB SHOP, MARE ISLAND NAVAL HOSPITAL

The job classification for an engineer has been returned from the Area Wage and Classification Office and an application for the job has been sent to the Bureau of Medicine & Surgery for approval.

Commander Canty and Lt. Asbelle attended the meeting of the Committee on Artificial Limbs in Washington, D. C. on May 10-14-1948. A number of projects were presented including results of field testing. Four amputees were presented and demonstrated the use of bilateral BK suction sockets and functional ankle joints, BE arms, cineplastic AE arms, suction sockets, pronator-supinator and a bilateral AE arm, cineplastic pectoralis motors.

The following projects are being worked on:

1. Functional Ankle Joint:

Work is continuing on the new design of the functional ankle joint. Services of the rubber laboratory in the navy yard are being utilized in order to design a better type of rubber bumper.

2. Suction Socket:

All types of stumps are being fitted with suction sockets. Recently a suction socket has been fitted to an above elbow stump which is one inch in length.

3. Cineplastic Arms:

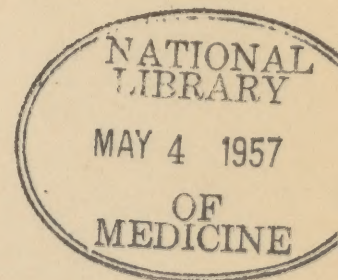
No new prostheses have been made in the past month.

4. Pronator-Ssupinator for Above Elbow:

No new units have been installed in the past month.

5. Robinson Hand Cosmetic Glove:

A new type of pastic impression material (zelox) is being utilized in order to secure better impressions for the cosmetic glove.



6. Soft Bucket and Impression Methods for Below Knee Stumps:

The soft bucket continues to prove successful. An adjustable prosthesis is being built in order to take impressions of BK stumps with zelox fitted in an amputee in which the impressions of the stump are taken with the amputee standing, walking and sitting.

7. Selectron and Fortisan Laminate:

The shins and forearm shells are being manufactured routinely with the use of the PVA bags.

8. Tilting Table Prosthesis:

Work continues on the machining of the parts on the new tilting table hydraulic prosthesis.

9. Functional Joint for Elbow, Wrist and Hips:

This joint is being used routinely at the present time and the amputees are unanimous in their opinion of its improvement over the conventional type joint.

10. Forged Aluminum Joints:

Field testing reports on forged aluminum joints continue to be excellent.

11. Suction Socket Valves:

The new suction socket valve is proving satisfactory and with the different type flanges readily fits any type case.

12. Flexible Plastics:

Work continues on flexible plastic biceps cuffs and arm sockets.

13. Nylon Belting:

Nylon belting is now being used routinely on all arm cases.

14. Parachute Nylon Shroud Cord:

These lacers are now being used routinely in all cases.

15. Functional Knee Joint:

The functional knee joint is working successfully, except the bolt on the stem continues to loosen and it is intended to eliminate this section and make it a solid piece.

16. Wrist Disarticulation Prostheses:

Two new cases have been fitted with the new wrist disarticulation prosthesis.

17. Wrist Flexion Unit:

The new Robin-Aid wrist flexion unit has been fitted to a bilateral case, using the Northrup wrist flexion unit on one side and the Robin-Aid flexion unit on the other. From observations and the amputee's comments, it appears that the Robin-Aid's wrist flexion unit has a decided advantage of a multiplicity of positions and ease of operation. Its disadvantage is that it only flexes about 21° where the Northrup unit can flex to 45°. The unit is being redesigned to increase its degree of flexion.

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Commander, MC, USN
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Artificial Limb Dept.

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U. S. NAVAL HOSPITAL, MARE ISLAND, VALLEJO, CALIFORNIA
3 June 1948

From: Medical Officer in Command
To: Committee on Artificial Limbs
2101 Constitution Avenue
Washington, D. C.

1. Forwarded.

W. H. PERRY